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(71)Applicant : SHISEIDO CO LTD

(72)Inventor : TAKAHASHI ATSUSHI
SATO HIROYOSHI
SUZUKI KAZUAKI

(54) COSMETIC

(57)Abstract:

PURPOSE: To obtain a cosmetic effective for improving the moisture-retention of skin, having high compatibility with the skin and giving moist feeling to the skin by compounding a natural mineral water.

CONSTITUTION: This cosmetic is compounded with natural mineral water and preferably incorporated with a moisture-retention component consisting of one or more compounds selected from polyhydric alcohol, mucopolysaccharide (preferably hyaluronic acid salt or chondroitin sulfate salt), a natural moisture-retention factor (preferably amino acids or lactic acid salts selected from pyrolidonecarboxylic acid salt, serine, glycine and alanine) and a cycodextrin derivative (preferably hydroxyalkylated β-cyclodextrin). The preferable examples of the natural mineral water are waters drawn up from the foot of the mount Fuji, the Rokko mountain in Hyogo prefecture, the Tanigawa mountain in Gunma prefecture and the foot of the Southern Japan Alps. The amount of the natural mineral water to be compounded to the cosmetic is preferably ≥1wt.%, especially ≥10wt.% based on the total amount of the cosmetic.

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* NOTICES *

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DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Industrial Application] This invention relates to amelioration of cosmetics, especially its water.
[0002]
[Description of the Prior Art] Conventionally, the ion exchange water which processed the tap water or this which gave chlorine sterilization with ion exchange resin etc. as water blended with cosmetics is used widely. It has become the center of attention to spring from the underground generally called natural water, natural mineral water, and mineral water (refer to the MIERARU water quality display guideline of an announcement of the March 20, 1990 Ministry of Agriculture, Forestry, and Fisheries; it names generically and is hereafter called natural water) and surface of the earth, and to use water in fields, such as potable water, on the other hand.
[0003]
[Problem(s) to be Solved by the Invention] Natural water has spread very as potable water, as mentioned above, and it is accepted as what has the added value different from tap water. And although not yet solved about the device, it is thought that the minerals of the minute amount in natural water and the balance of the organic substance will be related to a difference with tap water. However, when these natural water is blended with cosmetics, a difference with said tap water or ion exchange water is not clear, and, moreover, costs dearly in cost.
[0004] For this reason, conventionally, it is [that the ion exchange water which processed said tap water chiefly is only used for cosmetics, and], and did not look back at all about natural water. This invention takes an example by the technical problem of said conventional technique, and is made, the purpose demonstrates enough the description of natural water which it originally has to the skin, and it is in offering the cosmetics which can moisturize the skin effectively.
[0005]
[Means for Solving the Problem] Its attention is paid to the mineral in natural water as a result of this invention persons' inquiring wholeheartedly, in order to attain said purpose. Since the mineral in natural water is one of the natural moisturization factor (henceforth NMF) components in the keratin of the skin, if a suitable moisturizing component is combined in cosmetics using natural water as a base material It discovered that the cosmetics approximated to the moisturization device of the skin in component with the mineral originating in natural water could be obtained, and resulted in completion of this invention.
[0006] That is, it is known that moisture is deeply related to maintenance of the youthful skin, and it is recognized that moisturization of the skin is one of the important functions for cosmetics. the moisture absorption matter of the hydrophilic property called the natural moisturization factor in keratin (henceforth NMF) when moisturization of the skin is considered -- existing -- a role important after that the skin moisturizes -- achieving -- **** -- further -- moisturization of the skin -- an NMF component -- in addition, it is known that the mucopolysaccharide which existed in dermis and has played the role of water retention has played the important role similarly. Conventionally, as for manufacture of cosmetics, it was desirable to be carried out by using this natural moisturization device as a model, and it had added

it to cosmetics by using the hygroscopic high matter as a moisturizer among these components.
[0007] That is, minerals, such as amino acid, such as a glycine, a serine, an alanine, and pyrrolidone carboxylate, a potassium, sodium, calcium, and magnesium, the urea, the saccharide, the organic acid, etc. are contained in the NMF component in the keratin of the skin. On the other hand, in natural water, various minerals, such as calcium, magnesium, sodium, and a potassium, are contained. These are considered to approximate a mineral and not only a class but the existence gestalt which exists as an NMF component in the skin. Therefore, if the various moisturizing components, for example, the amino acid, in an NMF component etc. are added to the cosmetics which blended natural water, it is possible to obtain the NMF component of the skin and the cosmetics of the presentation to approximate.
[0008] It is possible to obtain the moisturization device of the skin and the cosmetics to approximate further by adding the mucopolysaccharide which furthermore existed in moisturization of the skin in dermis in addition to the NMF component, and has played the role of water retention. The cosmetics concerning this invention made based on the above knowledge are characterized by blending natural water.
[0009] Moreover, it is characterized by blending a moisturizing component into the above-mentioned cosmetics. Moreover, it is suitable that the moisturizing components to blend are a kind or two sorts or more of combination chosen from polyhydric alcohol, a mucopolysaccharide, NMF, or a cyclodextrin derivative. Furthermore, it is suitable that NMF is amino acid or a lactate. Moreover, it is suitable that they are a kind or two sorts or more of combination as which amino acid is chosen from pyrrolidone carboxylate, a serine, a glycine, and an alanine.
[0010] Moreover, it comes out of a kind or two sorts of combination as which a mucopolysaccharide is chosen from hyaluronate and a chondroitin sulfate, and a certain thing is suitable. Moreover, it is suitable that a cyclodextrin derivative is hydroxyalkyl-ized-beta-cyclodextrin. Hereafter, the configuration of this invention is explained in full detail. Although any use is possible if it is an underground water and surface water and is the thing of extent with which drink can be presented, the natural water used for this invention Especially The foot of Fuji (Yamanashi, various parts of Shizuoka), Hyogo Rokko-san, Gumma Mt.Tanigawadake, the foot of Minami-Alps, the foot of the North Alps, and the Osaka **** -- the mountain system, Iwate Ominesan system, Kyoto Yamasaki, Kyoto Kurama-yama, and Kagoshima Kirishima-yama system, Kagoshima Yaku Islands, Fukushima Prefecture, the Yamagata Azuma-yama system, etc. are mentioned as a suitable thing.
[0011] in addition, Tochigi Nasu -- a mountain system, daylight ****, the Gumma red Kiyama system, and the Saitama Musashi hill -- Chichibu -- a mountain system, the Chiba Sambu group, the Tokyo Mejiro base, the Kanagawa Tanzawa-yama system, and the Yamanashi Fuji Shanhsi foot -- A mountain, Numazu, Shizuoka, and a dragon A cave, Matsumoto, Nagano, ******, Kamikochi, Karuizawa, Kiso Ontake, central Alps Mt. Komagatake foot, [Asagiri Highland, the Kofu Misaka peak, foot Shimobe Spa of Fuji the Sasako peak, Nishikatsura-cho and the Minami-Alps worth piece] Niigata Echigo -- the mountain system, Ishikawa Hakusan, and Shiga Otowa-yama system, Kyoto Kitayama, Kurama-yama, a capital letter hot spring, the Osaka Kumgang-san foot, the Nose Yoshino crest, Tanba, the foot of Wakayama Gomadan-zan, **** in Okayama Prefecture, the Hiroshima Kamo plateau, etc. are illustrated.
[0012] In this invention, a kind of natural water or two sorts or more can be chosen and used. Although especially loadings are not limited, the natural water contained in cosmetics is the amount especially contained 10% of the weight or more preferably 1% of the weight or more among the cosmetics whole quantity. At less than 1 % of the weight, the effectiveness of this invention may not fully be demonstrated for the natural water contained in cosmetics. As a moisturizing component used for this invention, polyhydric alcohol, a mucopolysaccharide, NMF, a cyclodextrin derivative, etc. are mentioned. Especially, what is contained in an NMF component, and the thing contained in the component of the moisturization device of the skin are desirable.
[0013] As NMF, amino acid and a lactate are suitable among the moisturizing components used for this invention. The pyrrolidone carboxylate contained so much in an NMF component as amino acid among the moisturizing components used for this invention, a serine, a glycine, and an alanine are suitable. As a

mucopolysaccharide, hyaluronate and a chondroitin sulfate with the work which exists on a skin connective tissue and holds water to an intercellular space are suitable among the moisturizing components blended with the cosmetics of this invention.

[0014] Moreover, as a cyclodextrin derivative, high hydroxyalkyl-ized-beta-cyclodextrin is suitable for especially a hydrophilic property among the moisturizing components blended with the cosmetics concerning this invention. Hydroxyalkyl-ized-beta-cyclodextrin can carry out inclusion of the oleophilic matter to the opening, and can work also as a fixer of an oily component. Therefore, while hydroxyalkyl-ized-beta-CD works as a moisturizer in itself, by blending this with cosmetics, the inclusion of various oily components is expected and it is also expected that the mineral and the added moisturizing component in natural water will work on the skin effectively.

[0015] The various components generally blended with the cosmetics other than the above-mentioned constituent can be blended with the cosmetics of this invention if needed. As those components, a liquid paraffin, squalane, a lanolin derivative, Higher alcohol, various ester oil, silicone oil, a polyalkylene glycol polyether, and other carboxylic acids, Oil, such as an oligo ester compound and a terpene hydrocarbon oil, a surfactant, Resin, such as an ultraviolet ray absorbent, an ultraviolet scattering agent, acrylic resin, silicone resin, and a polyvinyl pyrrolidone Protein or protein decomposition products, such as soybean protein, gelatin, a collagen, silk fibroin, and an elastin, Activators, such as antiseptics, such as ethylparaben and butylparaben, a biotin, and a pantothenic acid derivative, Thickeners, such as diluents, such as ethanol, isopropanol, and tetra-clo difluoroethane toluene, and a carboxyvinyl polymer, a chelating agent, an antioxidant, a moisturizer, drugs, perfume, a coloring material, etc. are mentioned.

[0016]

[Example] An example explains this invention to a detail further below. This invention is not limited by this. Hereafter, loadings are expressed with weight %.

Humidity of the 0.1ml of each trial water in which the water retention function carried out examination adjustment is carried out to a filter paper in a micro syringe, and this is left in the air conditioned room of the temperature of 25 degrees C, and 50% of humidity. When weight W0 and 10 minutes after neglect is set to W10 for the weight (weight of filter paper + trial water) immediately after carrying out humidity of Wp and the trial water for the weight of the filter paper before carrying out humidity of the trial water,

$$\text{水分の蒸発速度 (V)} = 1 - \frac{W_{10} - W_p}{W_0 - W_p}$$

The moisture vapor rate (V) of each trial water was measured having asked for the vapor rate of moisture and having used [carried out,] the moisture vapor rate of ion exchange water as 100.

[0017] What was shown in the following table 1 as trial water was used. Ion exchange water used what carried out the ion exchange of the water of the water supply system of Yokohama, Kanagawa. Moreover, the underground water at the foot of Fuji was used as natural water.

[Table 1]

---------- (a) ion-exchange-water (b) natural water -1 (mineral 22.1ppm content)
(c) Ion-exchange-water + mineral (CaCl2, MgCl2, 11 ppm each)
(d) Natural water-1+ glycine (0.03%)
(e) Ion-exchange-water + mineral (CaCl2, MgCl2, 11 ppm each) + glycine (0.03%)
A ---------- ---------- result is shown in drawing 1 .

[0018] (a) As compared with ion exchange water, the (b) natural water -1 has a slow moisture vapor rate, and it is suggested that high moisturization can be obtained. Moreover, even if compared with the ion exchange water which added each (c) CaCl2 and MgCl2 [11 ppm], as for (b), it is suggested that still higher moisturization is obtained. Therefore, it is not necessarily dependent only on existence of a mineral, and moistness became clear [that it is suitable that existence of a mineral existence gestalt or other organic components is considered to have affected it, and uses natural water].

[0019] Moreover, the natural water -1 which added the glycine which is the (d) moisturizer has a still

slower moisture vapor rate as compared with (b), and it is suggested that a high moisturizing effect is shown. Moreover, a moisturizing effect higher than the ion exchange water which added 11 ppm each and a glycine is suggested in (e) CaCl2 and MgCl2. Therefore, it is suggested by it being suitable to use the natural water containing a mineral, adding moisturizers, such as amino acid, to this, and bringing close to the NMF component of the skin that a moisturizing effect goes up. Furthermore, the following evaluations examined the combination component.

[0020] [The evaluation approach]

the goodness [of the concordance to the skin of cosmetics], and use back -- gently -- 15 evaluation female panels of ** -- a sample -- actually -- using it -- the goodness [of the concordance to the skin], and use back -- organic-functions evaluation was gently carried out about **. The standard sample which made the same [other formulas] the ion exchange water which carried out the ion exchange of the tap water of Yokohama-shi as evaluation of each sample being standard using the **** daily dose under formula except the water of the raw material origin was used.

[0021] Rank attachment was carried out as follows by evaluation of the panel when using each sample to a standard sample (it being whole-quantity use about ion exchange water).

(Evaluation of the goodness of concordance)

X= (number estimated that the sample is [concordance] better) - (number estimated that the standard sample is [concordance] better)

Rank A : X is 10-15B. : X is 5-9C. : X is 1-4D. : X is -15-0 (gently evaluation of **).

Y= (number estimated that the direction of a sample carries out gently) - (number estimated that the direction of a standard sample carries out gently)

Rank A : Y is 10-15B. : Y is 5-9C. : Y is 1-4D. : Y is -15-0[0022]. The face toilet of a formula of the examination table 2 of the class of water was adjusted, and the evaluation was performed.

[Table 2]

(Basic formula)

---------- sodium metaphosphate 0.05 Citric acid 0.04 Sodium citrate 0.16 POE (60) hydrogenated castor oil 0.5 Methylparaben 0.1 Perfume 0.05 Ethanol 10.0 Under a moisturizing component Account Trial water 84.1 Ion exchange water ** The basic formula more than complementary ---------- ---------- estimated by transposing trial water to each water of the following table 3. The glycine was blended 0.03% of the weight as a moisturizing component, and face toilet was adjusted.

[0023]

[Table 3]

---------- trial water The bottling-water ground A mineral (ppm) calcium2+ Mg2+ Na+ K+ ---------- Ion exchange water Yokohama water supply system 0.1 or less 0.1 or less 0.5 or less 0.5 or less What carried out the ion exchange Tap water The Yokohama water supply system 18.9 6.5 9.73.7 Natural water -1 The foot of Fuji 8.5 3.4 7.6 1.6 Natural water -2 Hyogo Rokko-san 24.05.7 18.0 0.3 natural water -3 The foot of Minami-Alps 11.0 1.4 6.0 In 2.0----------, in addition the above-mentioned trial water, tap water used the water supply system of Yokohama, Kanagawa. Moreover, what similarly carried out the ion exchange of the water of the water supply system of Yokohama, Kanagawa was used for ion exchange water. The obtained face toilet performed organic-functions evaluation by the panel. A result is shown in Table 4.

[0024]

[Table 4]

---------- Trial water Goodness of concordance It is ---------- ---------- ion exchange water gently. (standard sample)

Tap water D D Natural water -1 A A Natural water -2 A A Natural water -3 A A---------- in spite of containing enough minerals for tap water as mentioned above, the face toilet which this adjusted compares that it is standard, and its evaluation is low. This is considered to be based on work of components other than the displayed mineral. It is suggested that the mineral in which each evaluation is high and natural water has it is, on the other hand, committing effectively the cosmetics adjusted with

natural water 1-3.
[0025] It evaluated by examining the loadings of natural water based on the basic formula of the examination above-mentioned table 2 of natural water loadings. As natural water, the glycine was blended 0.03% of the weight as a moisturizer using the natural water -1 and natural water -2 with which the contents of a mineral differ.
---------- Ion exchange water 84.0 83.1 79.1 74.1 64.1 54.1 34.1 14.1 Zero natural water -1 0.1 1.0 5.0 10.0 20.0 30.0 50.0 70.0 84.1 ---------- Goodness of concordance D C B A A A A A A Gently C B B A A A A A A ---------- ---------- Ion exchange water 84.0 83.1 79.1 74.1 64.1 54.1 34.1 14.1 Zero natural water -3 0.1 1.0 5.0 10.0 20.0 30.0 50.0 70.0 84.1 ---------- Goodness of concordance C B B A A A A A A Gently C B A A A A A A A ---------- [0026] Although the loadings of natural water -1 are accepted for some improvements at 5 % of the weight or more the above result, a ****** difference is accepted at 10 % of the weight or more. Moreover, with natural water -2, although loadings are accepted for some improvements at 1 % of the weight or more, a ****** difference is accepted at 10 % of the weight or more. Therefore, in order to acquire the effectiveness of this invention, it is with the need that natural water is contained 10% of the weight or more still more suitably at least 1% of the weight or more.
[0027] It evaluated by adjusting the face toilet using various moisturizing components based on the basic formula of the examination aforementioned table 2 of a moisturizing component. As trial water, ion exchange water and natural water -1 were used.
[Table 6]
---------- A moisturizing component Loadings The goodness of concordance Gently ---------- sorbitol 5.0 C B Glycerol 5.0 B A Pyrrolidone carboxylate 1.0 A A Serine 0.3 A A Hyaluronic acid 0.1 A A Sodium lactate 1.0 A A HP-beta-CD 0.5 A A---------- ---------- [0028] When the face toilet which contains various moisturizing components and natural water as mentioned above was adjusted, the effectiveness which was excellent compared with the case where ion exchange water is used was demonstrated. Moreover, as compared with the polyhydric alcohol of sorbitol and a glycerol, pyrrolidone carboxylate, a serine, hyaluronic acid, a lactate, and HP-beta-CD demonstrated the effectiveness which was further excellent in small loadings. Therefore, it was suggested by adding as a moisturizer the NMF component of the skin, and the component which works in the moisturization device of the skin that more effective effectiveness is shown. Hereafter, the more concrete example of the cosmetics concerning this invention is explained.
[0029]
Example 1 Milky lotion (1) dipropylene glycol 5.0 (2) glycerols 3.0 (3) carboxyvinyl polymers 0.1 (4) triethanolamines 1.0 (5) stearic acid 2.0 (6) sorbitan-monooleate-ether 2.0 (7) stearyl alcohol 1.5 (8) vaseline 4.0 (9) squalane 5.0 (10) glycerol tree 2-ethylhexoate 2.0 (11) ethylparabens 0.2 (12) perfume 0.05 (13) hydroxypropyl-ized-beta-cyclodextrin 0.1 (14) natural water -1 The milky lotion was prepared with 74.05 conventional methods. the evaluation result by the panel -- goodness:A of concordance -- it was :A gently.
[0030]
Example 2 Moisturization cream (1) 1, three butylene glycols 6.0 (2) PEG 1500 The 4.0(3) POE(25) cetyl-alcohol ether 3.0 (4) glyceryl monostearate 2.0 (5) cetyl alcohol 3.0(6) solid-state paraffin 2.0 (7) vaseline 5.0 (8) squalane 15.0 (9) butylparaben 0.2 (10) chondroitins 0.05 (11) perfume 0.1 (12) natural water -1 The moisturization cream was prepared with 59.65 conventional methods. the evaluation result by the panel -- goodness:A of concordance -- it was :A gently.
[0031]
Example 3 Massage cream (1) dipropylene glycol 5.0(2) POE(20) sorbitan monostearin acid ester 2.0 (3) glyceryl monostearate 2.5 (4) stearic acid 2.0 (5) potassium hydroxides 0.1 (6) cetyl alcohol 3.0 (7) solid paraffin 5.0 (8) vaseline 10.0 (9) liquid paraffins 35.0 (10) isopropyl myristate 10.0 (11) butylparaben 0.2 (12) alanines 0.05 (13) perfume 0.1 (14) natural water -1 The massage cream was prepared with 25.05 conventional methods. the evaluation result by the panel -- goodness:A of

concordance -- it was :A gently.
[0032]
Example 4 Body shampoo (1) N-lauryl methyl taurine sodium (30% water solution) 2.0 (2) lauric acids 2.5 (3) myristic acids A 7.5(4) PAL thymine acid 2.5 (5) stearic acid 2.5(6) lauroyl diethanolamide 5.0 (7) glycerols 20.0 (8) serines 0.1 (9) potassium hydroxides 3.6 (10) natural-water-1 54.4 (11) perfume ** Amount (12) color ** Amount (13) antiseptics, sequestering agent ** The body shampoo was adjusted according to the amount <process> conventional method. the evaluation result by the panel -- goodness:A of concordance -- it was :A gently.
[0033]
Example 5 Cleansing cream form (1) stearic acid 12.0 (2) myristic acids 14.0 (3) lauric acids 5.0 (4) jojoba oil 3.0 (5) potassium hydroxides 5.0 (6) sorbitol (sorbitol 70% Soln.) 15.0 (7) glycerols 10.0 (8) 1, 3-butylene glycol 10.0(9) POE(20) glycerol monostearin acid ester 2.0 (10) acyl methyl taurine 4.0 (11) glycines 0.01 (12) chelating-agent ** Amount (13) perfume ** Amount (14) natural water -1 The heating dissolution of 20.0 <process> (1) - (4) and (6) - (8) and (11) is carried out, and it keeps at 70 degrees C. (5) is dissolved in (14), and it adds, stirring said adjustment object. After fully counteracting, (9) and (10) are added, and (12) and (13) are added continuously. It cooled after degassing and cleansing cream form was obtained. the evaluation result by the panel -- goodness:A of concordance -- it was :A gently.
[0034]
[Effect of the Invention] The cosmetics concerning this invention can aim at an improvement of the moistness of the skin by blending natural water. Moreover, the NMF component of the skin and the feeling of use which it brought close to the moisturization device of the skin further, and was rich in the moisturizing effect, and the concordance to the skin was good, and was carried out gently can be obtained for the component of cosmetics by using a suitable moisturizing component for cosmetics with natural water.

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CLAIMS

[Claim(s)]
[Claim 1] Cosmetics characterized by blending natural water.
[Claim 2] Cosmetics according to claim 1 characterized by blending a moisturizing component.
[Claim 3] Cosmetics according to claim 2 characterized by moisturizing components being a kind or two sorts or more of combination chosen from polyhydric alcohol, the mucopolysaccharide, the natural moisturization factor, or the cyclodextrin derivative.
[Claim 4] Cosmetics according to claim 3 which a natural moisturization factor becomes from a kind or two sorts or more of combination chosen from amino acid or a lactate.
[Claim 5] Cosmetics according to claim 4 which are a kind or two sorts or more of combination as which amino acid is chosen from pyrrolidone carboxylate, a serine, a glycine, and an alanine.
[Claim 6] Cosmetics according to claim 3 which are a kind or two sorts of combination as which a mucopolysaccharide is chosen from hyaluronate and a chondroitin sulfate.
[Claim 7] Cosmetics according to claim 3 characterized by a cyclodextrin derivative being hydroxyalkyl-ized-beta-cyclodextrin.

[Translation done.]